Module 1

1. Write a JavaScript program to create a temperature converter. Accept temperature values from end user in Celsius/Fahrenheit using prompt.
   HINT: Formula: c/5 = (f-32)/9
   [Where c = temperature in Celsius and f = temperature in Fahrenheit].

2. Write a JavaScript program to show output as given below:

   *
   * *
   * * *
   * * * *
   * * * * *
   * * * * * *

3. Write a JavaScript program to input a string and find the longest word within the string.
   (Hint: Use string length property to compare).

Module 2

4. Write a Javascript program to display account status of a person by accepting his/ her name. You can use following kind of collection to get the information.
   Program would display name, account type and appropriate message based on Account Status value. E.g. for JOHN AccountStatus is 'blocked' so message would be 'You need to activate your account'. If any user has AccountStatus as 'active', message would be 'Account is Active'.

```
var bank= [
  {
    name: 'JOHN',
    account: 'Saving',
    AccountStatus: 'blocked'
  },
  {
    name: 'KATE ',
    account: 'Current',
    AccountStatus: 'active'
  },
  {
    name: 'MIKE',
    account:  'Saving',
    AccountStatus: 'active'
  }];
```

5. Write a JavaScript function where the keys become the values and the values become the keys for the given Object:
   {Name: ”Sachin”, City: ”Pune” , Age: ”42”}

6. Create a class ‘Person’ with two properties ‘name’ and ‘location’ at constructor level. Create two methods at prototype level, ‘eat’ and ‘introduction’ to the ‘Person’ class. ‘eat’ displays a message ‘ I like sea food’. ‘introduction’ method displays a message ‘My name is ‘name’ and I am from ‘location’.
   Create one more class ‘Developer’, that inherits all the properties from ‘Person’ class and has its own property named as ‘projects’. ‘projects’ property should be an array containing the projects name on which developer is working. Create a method ‘takeleave’ at prototype level for ‘Developer’ class. ‘takeLeave’ method displays a message ‘I am on leave next week’. Override the introduction method of ‘Person’ class for Developer that will now display a message as ‘ My name is ‘name’ , I am from ‘location’ and I am allocated in - ‘projects’’ [Will display proper output once I will implement].

   Make sure Developer should be able to access prototype level methods of Person class,
   While instantiating Developer class, name and location of Person should get properly initialized.

Module 3 & 4

7. Create a dropdown list using HTML. Write a JavaScript program to count and display the items of that dropdown list and display in an alert window.

8. Create a table in HTML code & Write a JavaScript code to perform following tasks.

   1. Give an alternate background colors to rows.
   2. Header should have bold font.
   3. Give alternate text color to column elements.
   4. Last element of each column should have italic font.
   5. First element of each row should have underlined font style.

9. Design a simple calculator using basic HTML elements and implement the following functionalities: Use Unobtrusive approach for event handling.

   1. Add, Subtract, Divide and multiply buttons to display values in result box. Note the values should be appended.
   2. Clear button to clear the result box.
   3. Result button to display final result in result box.

   If possible show o/p for this assignment- after implementation.

10. Write a Javascript *program to handle event propagation for following HTML DOM structure*

    *i.e. div -> button -> img handle click event with **bubbling** and also try and click event with **capturing** for following hierarchy.*

```
<div style="padding:30px;">
    <Button>
        <img src='SomeImage.jpg' style="width: 100px; height: 100px;"></img>
    </Button>
</div>
```

11.Create a Javascript program which will animate div from left to right and right to left once it reaches the end of browser window.(HINT: use setTimeout and / or setInterval functions)

12. Create one div having 6 images. Create one more div covering half of the webpage. Perform the following tasks using Javascript.

- Arrange thumbnails of Images horizontally in the first div.
- By clicking on any image, display that image in a second bigger div.
- Create one Button 'Toggle Transparency'. Click on this button will toggle the transparency of the same image in second div.
- You can use necessary DOM API.

Module 5

13. Create a login page. Accept two inputs from user, 'username' and 'password'. Compare the username and password at server side and compare whether the user has logged in as administrator or not. If user has logged in as administrator, display an alert saying 'You are logged in as administrator'. If user has logged in as normal user, then display an alert saying 'You are not logged in as Administrator. You do not have rights to make any changes in the profile settings'.(Hint: Ajax POST request)

14. Create an xml file containing personal details of user like (First Name, Last Name, City, and Contact No). Create a JSON file that contains project related details of user like (Project Id, Project Location). Fetch user's personal details by clicking on 'Get Personal Details' and get project related details by clicking on 'Get Project Details'. Display all the data fetched from server in a table on HTML page, as shown below. (Use Ajax Get request)

15. Create a RESTful Service at Server side, by using technology of your choice (i.e. .Net, node, Java etc.) Service allows you to get Student Records, and also to delete individual record.

Student would have following details

roll_No – integer

name – string

percentage – float

Service provide you at least 5 to 10 records of students.

At Client side form would show all these records in table format, with 4 columns which would display records with Roll No, Name, Percentage and one button to delete that individual record like following

So once web page is loaded it would fetch all records from the server and show it in table along with delete button for each record.

By Clicking on delete button, respective student record get deleted from server.

(AJAX request – Get and Delete)